NWS FORM E-5 (11-88) **(PRES. by NWS Instruction 10-924)** **U.S. DEPARTMENT OF COMMERCE** **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION** **NATIONAL WEATHER SERVICE**	HYDROLOGIC SERVICE AREA (HSA) **WFO Jackson, Mississippi**
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH **June** YEAR **2013**
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE **Alan E. Gerard, Meteorologist In-Charge** DATE **07/18/2013**

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☐ **An X inside this box indicates that no river flooding occurred within this hydrologic service area.**

Synopsis...

The month of June ended the trend of unseasonably cool temperatures across the Hydrologic Service Area (HSA). Mean monthly temperatures at ASOS sites ranged from 0.1 degrees above normal at Greenwood to 1.4 degrees above normal at Hattiesburg. As far as rainfall, half of the area had below normal rainfall and the other half had above normal rainfall. Average monthly rainfall at ASOS sites ranged from 2.79 inches below normal at Greenville to 2.20 inches above normal at Meridian.

Hot, humid conditions prevailed for the first week to 10 days of the month as frontal systems moved back and forth across the Arklamiss Region. The month began with a strong southerly flow out ahead of a cold front. The cold front tracked across the HSA on the 2nd. Rainfall from 0.75 to 3.00 inches fell across the region. High pressure built into the region on the 3rd and remained in place through the 4th. Only some isolated to scattered showers occurred during this time period. High pressure shifting eastward and a low pressure system in the Central Gulf that would later become Tropical storm Andrea (which had landfall in the Florida Big Bend Region) worked together to push the stalled front along the coast northward from late on the 4th into the 5th. Scattered showers fell across the HSA ranging from 0.50 to 2.50 inches. Yet another cold front pushed across the region on the 6th, stalling along the Mississippi Coast on the 7th. Rainfall amounts of less than an inch were scattered across the HSA. The only exception to this trend was across portions of Central and East Mississippi which had fairly large areas of rainfall ranging from 1.00 to 3.00 inches. High pressure shifted to the east on the 8th and, once again, the front pushed back northward as a warm front on the 9th. Isolated to scattered areas of rainfall from 0.25 to 3.00 inches were produced with this front. Finally, surface and upper level high pressure built into the region through the 13th.

A "back door" cold front pushed southwest across the HSA on the 14th, bringing scattered light rainfall of less than 0.50 inches to North Mississippi while portions of South and East Mississippi had more

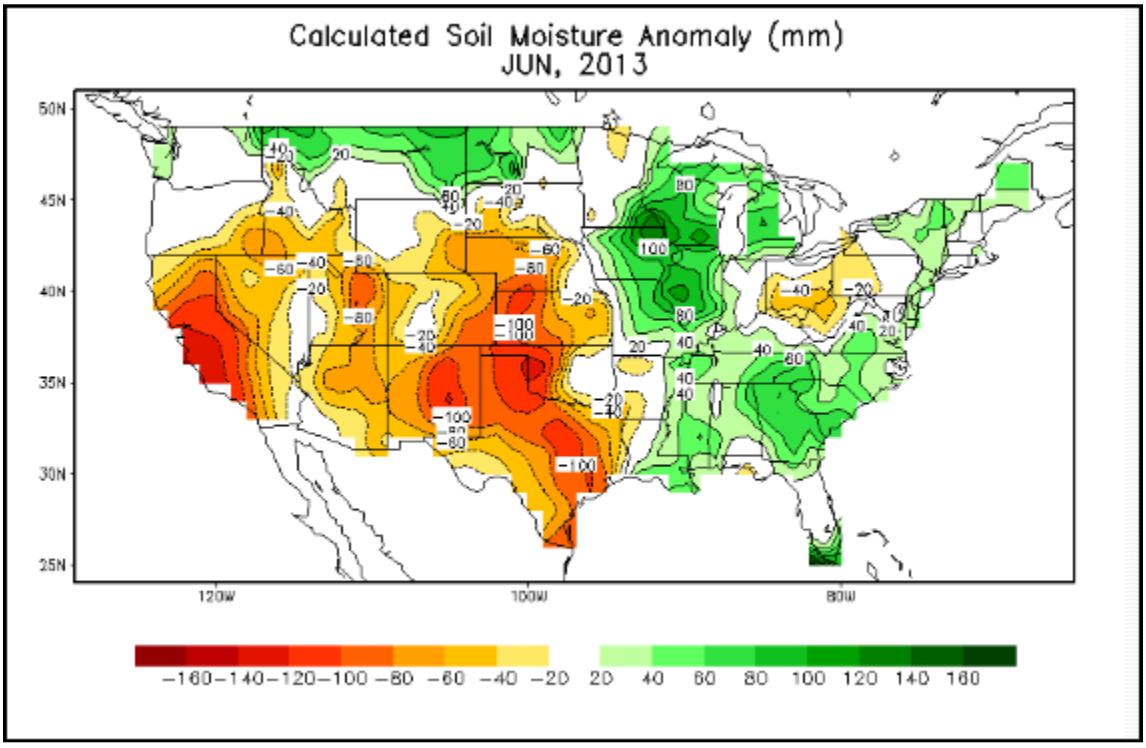
widespread rainfall ranging from 0.25 to 1.50 inches. Northeast Louisiana and Southeast Arkansas had little to no rainfall. High pressure built into the region on the 15th. A stalled boundary along the Louisiana Coast pushed northward and stalled east-west across the central portions of the HSA on the 16th. An outflow boundary propagated eastward into Northeast Louisiana, Southeast Arkansas, and West Mississippi on the 17th bringing isolated to scattered light rainfall. Some heavier thunderstorms developed along the Mississippi River between Greenville and Vicksburg producing rainfall from 0.50 to 3.50 inches.

A cold front moved into Southeast Arkansas on the 18th and very slowly pushed into central portions of the HSA by the 20th where it dissipated. Rainfall from 0.25 to 3.00 inches occurred across the area over this time period. High pressure moved into the region and remained there through the 28th. Only some isolated scattered afternoon showers were noted.

Another cold front moved across the area from the 29th until the morning hours of the 30th. Rainfall amounts were generally less than an inch with some isolated areas having from 1.00 to 2.00 inches. High pressure moved in through the remainder of the month.

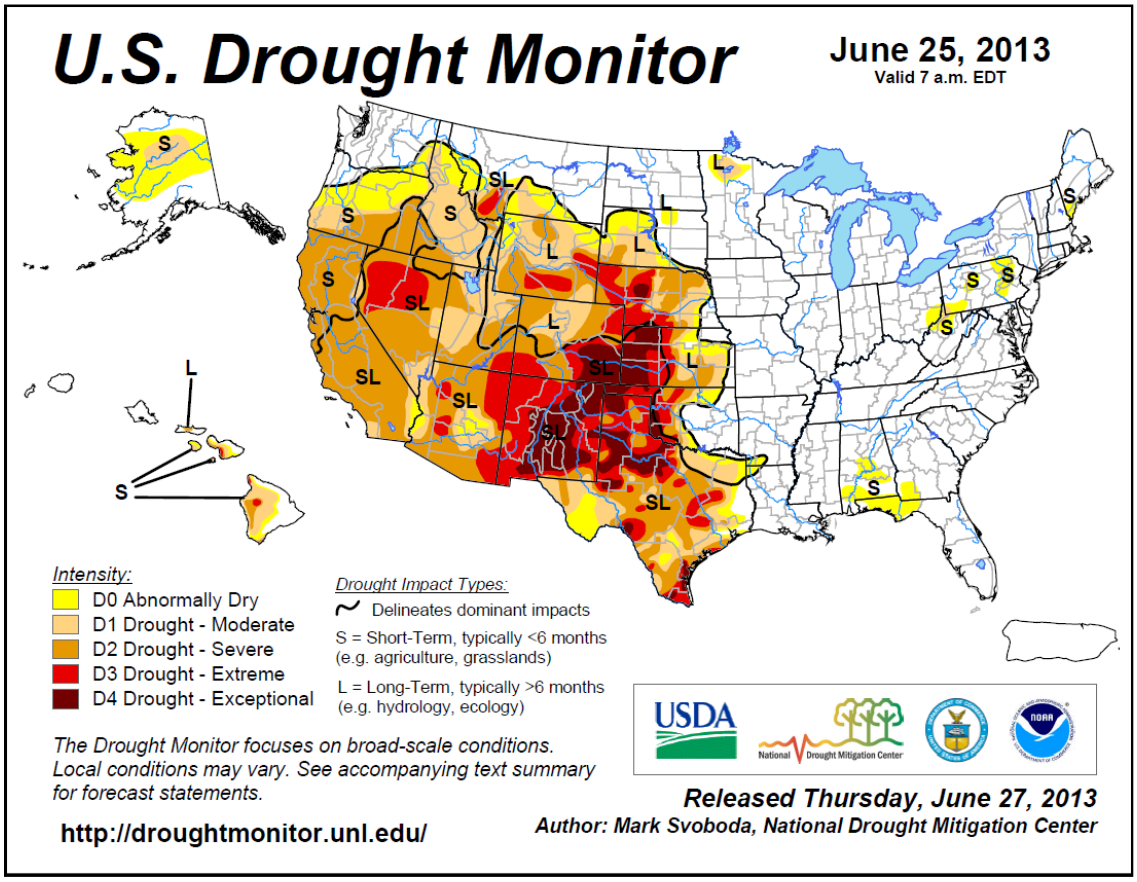
River and Soil Conditions...

Soil Moisture Map:

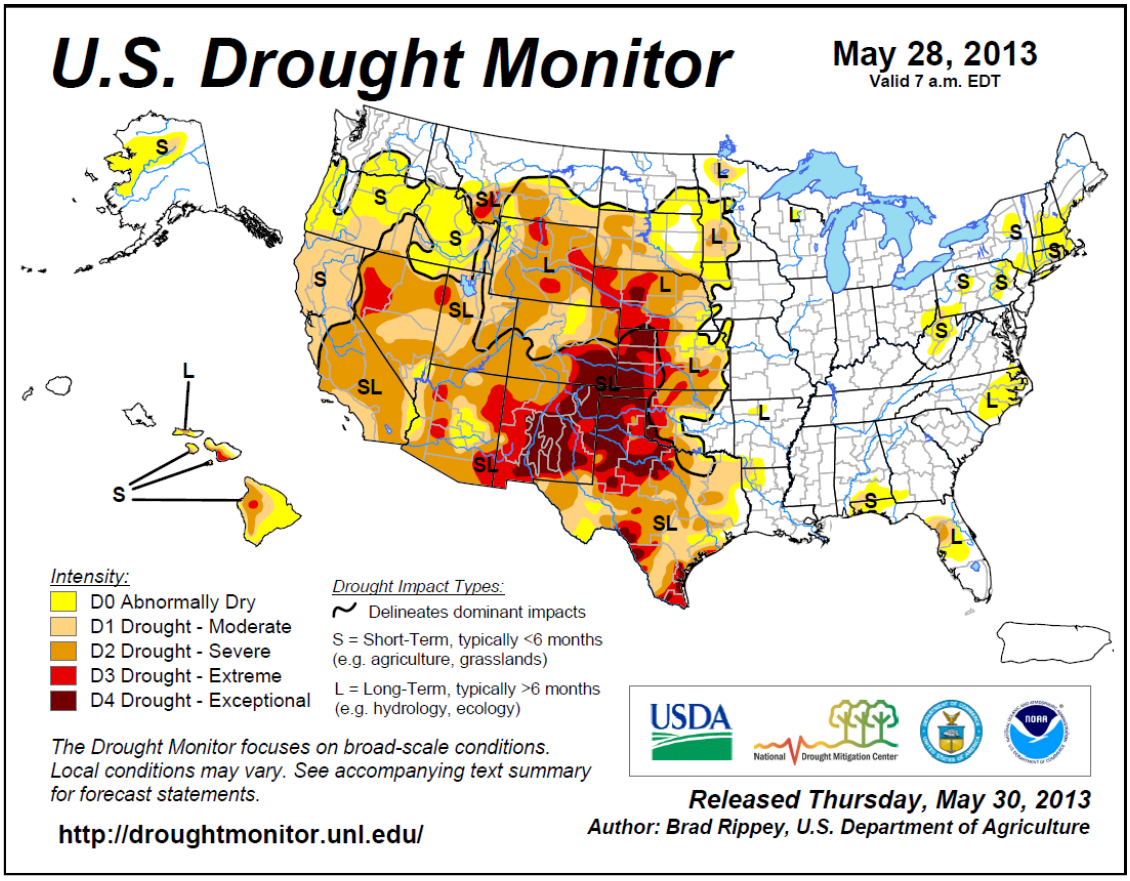


May 2013

Drought Comparison to prior month:



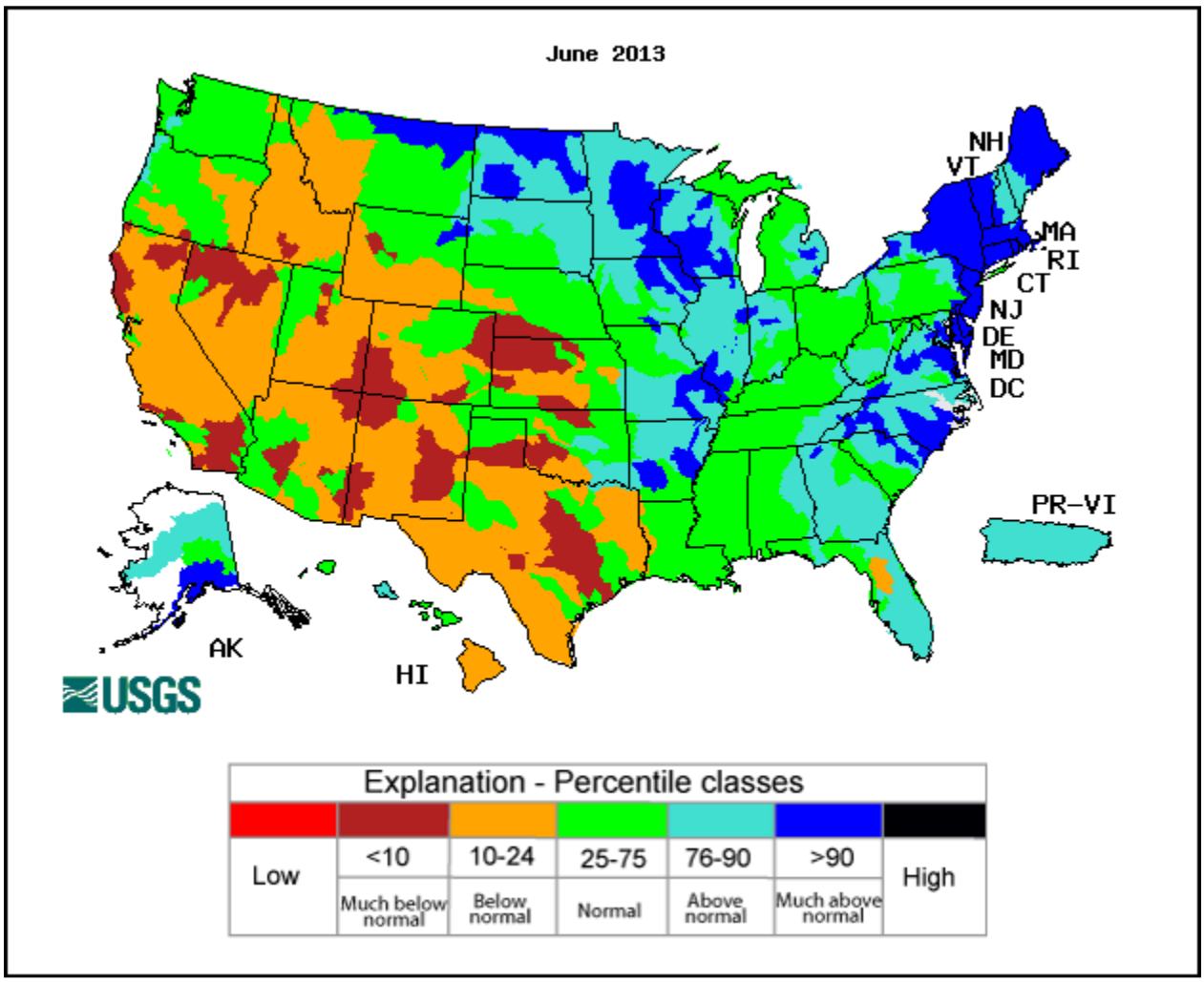
June 25, 2013



May 28, 2013

Streamflow:

The United States Geological Survey's (USGS) June 2013 river streamflow records were compared with all historical June streamflow records. Streamflow was near normal across the Hydrologic Service Area (HSA).



June 2013 Streamflow

River Conditions and flood potential:

The unsettled weather for the first week to ten days of the month produced minor to moderate rises in Pearl River Basin and minor rises along the Pascagoula and Big Black River Basins. Little change in river stages occurred in the Yazoo, Tombigbee, and Ouachita River Basins.

The Mississippi River from Arkansas City to Natchez had moderate below flood stage rises during the first half of the month.

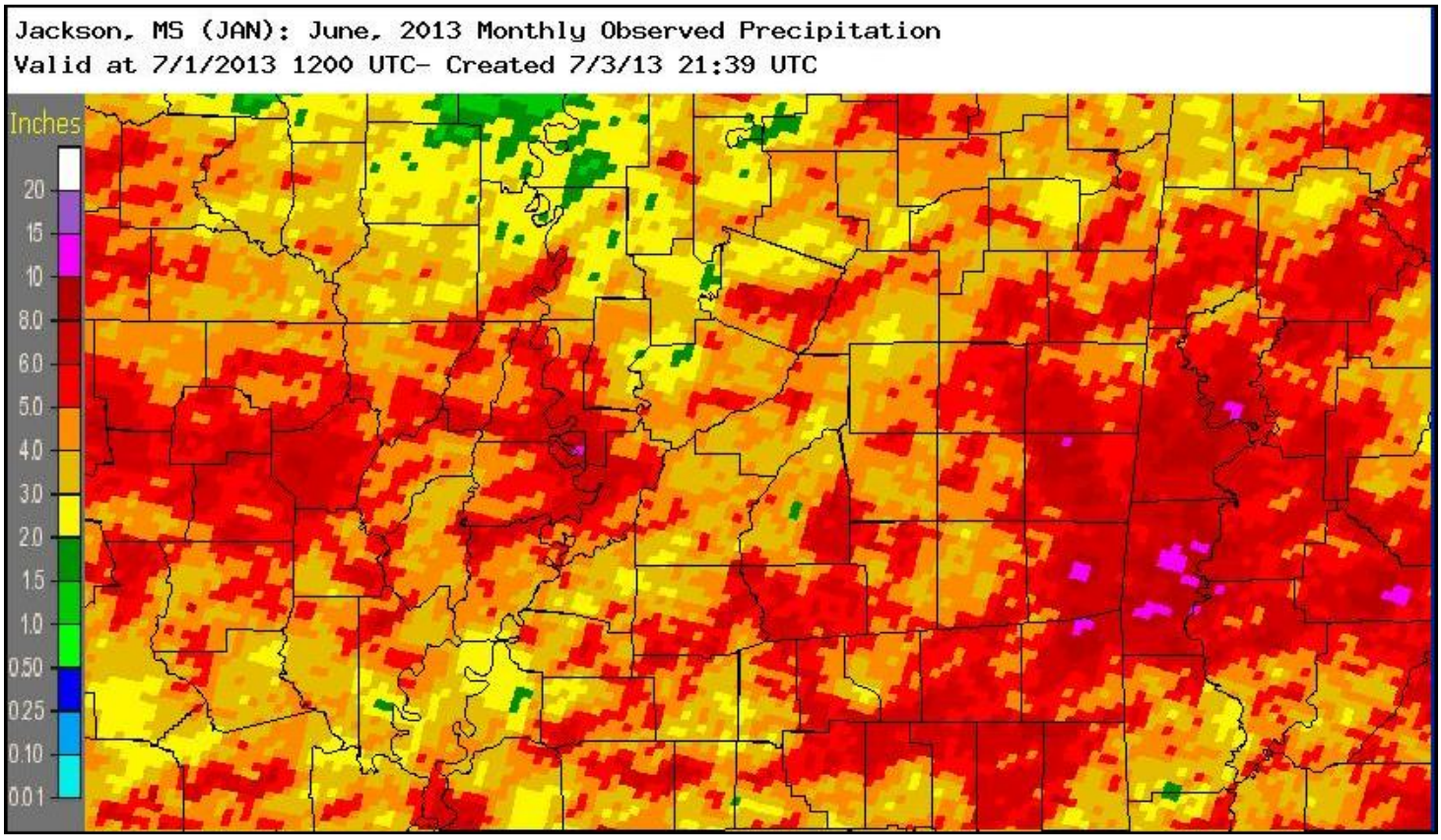
The climatic outlook for the next 3 months shows above normal temperatures along and west of the Mississippi River while there are equal chances of above or below normal temperatures elsewhere. Eastern portions of Mississippi will have above normal rainfall while the remainder of the area has equal chances of below or above normal rainfall.

Based on current soil moisture, streamflow, and the 3 month weather outlooks, flood potentials are as follows:

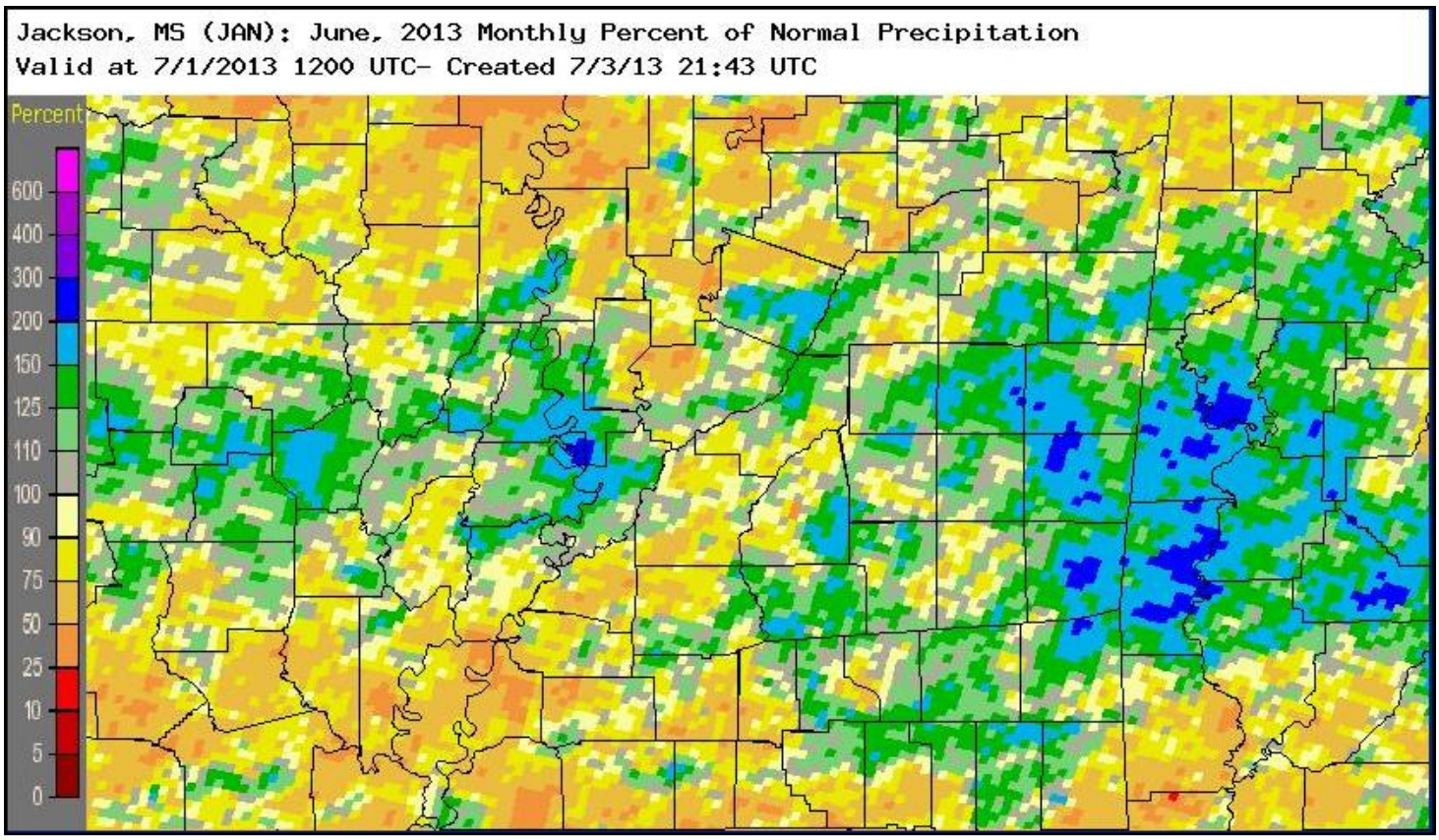
***Pearl River System*:**	**Average.**
***Yazoo River System*:**	**Average.**
***Big Black River System*:**	**Average.**
***Homochitto River System*:**	**Average.**
***Pascagoula River System*:**	**Average.**
***Northeast LA and Southeast AR*:**	**Average.**
***Tombigbee River System*:**	**Average.**
Mississippi River:	**Average.**

Rainfall for the month of June:

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on May 31st until 7 am on June 30th were: 9.79 inches at Shubuta, MS; 9.17 inches at Vicksburg, MS; 8.43 inches at Okatibbee Reservoir, MS; 8.41 inches at Pat Harrison Waterway's Archusa Water Park, MS; 7.66 inches at Pat Harrison Waterway's Dry Creek Water Park, MS; 7.07 inches at Topton, MS; 6.77 inches at Eudora, AR; 6.62 inches at Columbia, MS; 6.48 inches at Sumrall, MS; 6.32 inches at Walnut Grove, MS; and 6.21 inches at Pat Harrison Waterway's Big Creek Water Park, MS.



June 2013 Rainfall Estimates



June 2013 Percent of Normal Rainfall Estimates

Note: Observer rainfall and MPE may differ due to time differences.

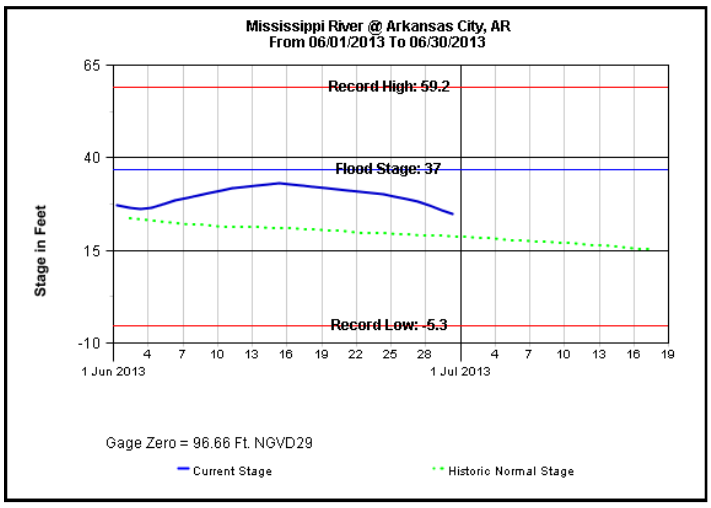
June rainfall for Selected Cities...

City (Airport)	June Rainfall	Departure from normal	2013 Rainfall	2013 Departure from Normal
Jackson, MS	5.00	+0.88	38.06	+9.83
Meridian, MS	6.60	+2.20	41.23	+11.40
Greenwood, MS	2.94	-1.37	33.35	+5.71
Greenville, MS	1.25	-2.79	26.21	-2.09
Hattiesburg, MS	5.08	-0.42	42.29	+10.25
Vicksburg, MS	5.34	+1.35	40.66	+11.37

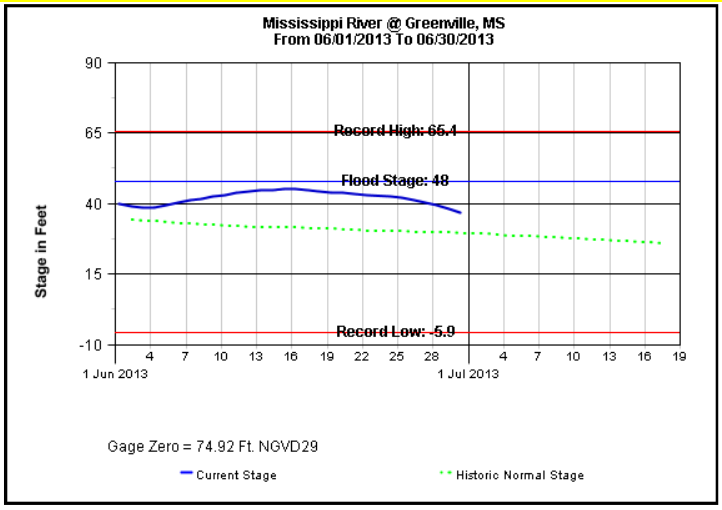
Mississippi River...

Mississippi River Plots for June, 2013

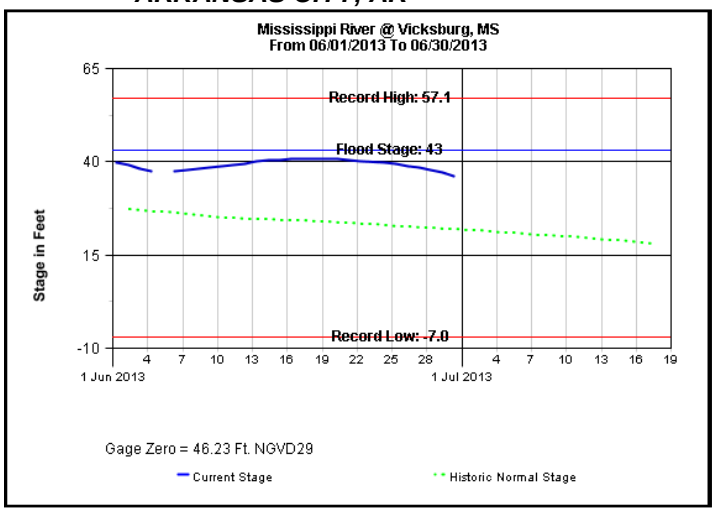
Plots Courtesy of the United States Army Corps of Engineers



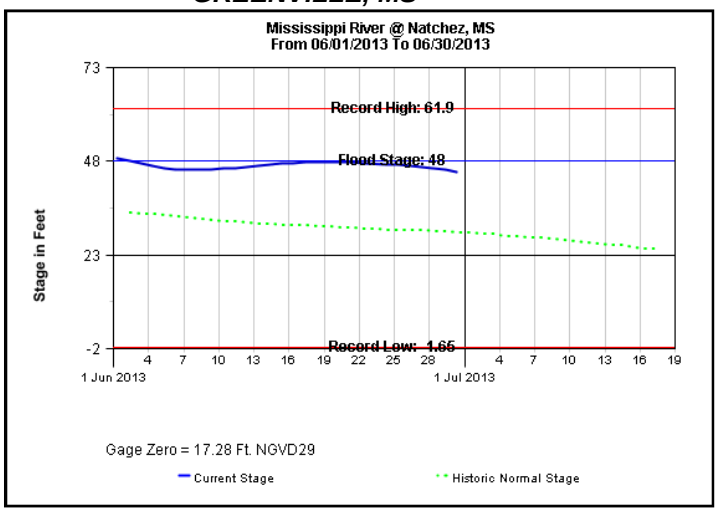
ARKANSAS CITY, AR



GREENVILLE, MS



VICKSBURG, MS



NATCHEZ, MS

Preliminary high and low stages for the month:

Location	FS	High Stage(ft)	Date	Low Stage(ft)	Date
Arkansas City, AR	37	33.08	06/15/13	23.97	06/30/13
Greenville, MS	48	45.03	06/15/13	36.09	06/30/13
Vicksburg, MS	43	40.99	06/16/13	35.56	06/30/13
Natchez, MS	48	48.84	06/01/13	44.75	06/30/13

Total Flood Warning products issued: 1
Total Flood Statement products issued: 15
Total Flood Advisories MS River : 36
Daily Climate and Ag WX Products (AGO'S) issued: 30
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 30
Daily River and Lake Summary Products (RVD'S) issued: 30

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District